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ABSTRACT

This paper briefly describes the Special Education Administration Training Project (SEATP), a competency-based model for training leaders in the field of special education. Although part of the discussion deals with particular facets of the SEATP model, much of it outlines basic characteristics that are shared by other competency-based training models as well. The authors focus in turn on what they consider unique characteristics of a competency-based training model, including 1) individualized instruction, 2) constant feedback of a self-correcting nature to the learner, 3) ongoing program evaluation, 4) empirically derived performance objectives, and 5) diverse training possibilities. (Author/JG)

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A Model of Competency-Based Training of Special Education Administrators

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The purpose of this paper is to describe a competency-based model for the training of leaders in the field of special education. The model, The Special Education Administration Training Project (SEATP) has been created and tested in Minnesota over the past three years.

The general goal of competency-based training is to enhance personal achievement through improved performance of the individual, the person who must carry out functions which will affect his/her work and life habits.

The competency-based orientation reflects a number of current trends in learning and training practices. The recent press for accountability in all human service programs, the desire to reduce fragmentation and overlap in training sequences, the need to individualize instruction, and the advantage of communicating to the participating individual what is expected - all have contributed to the emergence of competency-based training programs. Mobilizing the resources for changing individual performance in the domain of administrative behavior requires a "systems break" or the restructuring of conventional wisdom and training approaches.

Competency-Based Training - What is It?

Competency-based training is an approach to the systematic organization of instructional materials, assessment and evaluation with an end goal of optimizing the performance of an individual who has been trained utilizing this technique. Two key words in competency-based training are *individual* and *performance*. Emphasis in this training approach is always on the individual participating in the training experience.

The word performance is also at the heart of competency-based training. Performance can be defined as a set of observable events consisting of actions carried out by an individual. In the competency-based approach, it is the person's performance or observable behavior that is important, rather than a person's intent to perform some activity.

Characteristics of Competency-Based Training

The competency-based model described contains four unique characteristics designed to enhance the training of the administrator. These characteristics include an individualized approach to training, provision of constant and self-correcting feedback to a participant on his/her progress through the program and feedback to the training program itself on its success in changing the behaviors of participants, an information-based set of performance objectives derived for the training program, and an ability to design training experiences at a variety of different sites and for different populations. These characteristics are interwoven in an intricate pattern of instruction, assessment, and evaluation.

1. Individualized Instruction.

The competency-based training model assumes that individuals will vary in the extent to which they have already attained the desired administrative skills. Entry performance demonstrated on tests of content and on performance in simulation situations determine specific training needs for each individual; therefore, the amount and content of instructional experiences will vary among individuals. The performance skills acquired by the trainee can be viewed on a continuum, but acceptable performance is not derived from the individual's standing within the group but rather from an

analysis of performance needed in the personally defined goals of the individual. Grading or assessing the quality of performance is therefore on an individual's behavior throughout the training process.

2. Individual Assessment and Program Evaluation.

A competency-based model is by definition a data-based system. The emphasis on assessment serves two major purposes: It enables program managers to determine on an ongoing basis the extent to which individuals achieve the program's objectives, and it permits objective determination of the appropriateness of instructional methods, content of instruction and established criterion levels for achievement.

The assessment techniques used in the SEATP model focus on performance objectives necessary for changes in administrative behaviors and employ two basic strategies to determine the extent to which these objectives are being attained: performance assessment (using simulations of actual tasks which individuals must perform) and content assessment (measurement of the knowledge which an individual must have in order to function successfully). These measures are obtained on a pre-entry, post exit and follow-up basis.

Performance assessment consists primarily of a series of tasks, derived from content objectives, performed in simulated settings which approximate life conditions and which are rated by experts for adequacy. (Performance assessment by means of structured observations of individuals' actual performances in the life situation is another option but typically is not feasible due to time constraints and high costs). In addition, individuals' self-ratings of perceived proficiency levels are obtained and compared with observed levels.

Performance-based objectives specify tasks the individual needs to be able to perform, and demonstration of competency is complete and direct (performance of the task in a setting which simulates actual life conditions). However, the knowledge (information, grasp of concepts, and ability to apply them appropriately) required to perform tasks must be inferred, and consequently, content or knowledge testing is used for assessment of achievement in appropriate portions of the training program.

The goal in content testing is to create an extensive pool of items representing in miniature the basic characteristics of some important domain. The major advantage of this kind of testing is that from a small sample of items it allows estimates of an individual's "level of functioning" or the percentage of the total tasks of a specified type which would be answered correctly. The reliability of the test is the accuracy with which the probabilities of correct performance can be estimated. Validity can be assessed by logical analysis of the content area description and the individual test items.

Actual testing is done by means of a test of randomly selected items which measure the content area. For the pre-tests on each content area the items are selected to cover all objectives of that area. An estimate is made of the criterion level which constitutes mastery of each objective, and instruction is provided in those areas where the individual falls below the criterion level. Individual post-tests are developed and consist of items randomly selected from each area in which training was provided.

All cognitive assessment information is recorded and scored on computer. The system consists of programs and disc storage files which contain the item pool; maintains the status of individual participants in the training program; selects, prints and scores pre- and post-tests for each individual; and maintains an ongoing statistical summary of each person's progress through the training program. In this way, the individual can receive feedback on his/her performance on a test, simulation experience or any objective at any time during the course of training. This allows the trainee to develop self-monitoring and self-correcting skills once formal training has ceased.

A second important characteristic of this assessment strategy is that it provides direct program evaluation in the form of aggregates of individual's performances. These performances - how well people are cycling through the various training components - provides a description of the overall impact of the program and this is possibly the most unique characteristic of competency-based training. Individual assessment is traditionally an important aspect of a training program, but most systems do not take into account the necessity of feedback to the program directly in terms of modifying content, assessment strategies or training methods in order to better reach its goals and objectives.

3. Derivation of Training Objectives.

Although the literature on competency-based training does not distinguish very well between competency and other training models, the way in which training objectives are derived is sufficiently different from the content composition of other models so that from its inception, competency-based training is unique.

A competency-based model assumes that the performances which constitute a learning domain can be identified and stated. Traditional training programs have tended to rely on the judgments of University faculty or other visible "experts" as a means of deriving performance objectives. A competency model uses a study of role and function and objectives written by experts to empirically derive those behaviors which constitute the performance desired.

Although this basis for establishing training program content presumes a certain amount of stability in performance description, it is recognized that any adaptive performance is a dynamic one and that the training program will require revision.

Goal analysis is Mager's (1972) procedure for obtaining consensus among a group of people. This procedure includes the following steps: a panel of experts is selected; descriptive words and phrases about program content are elicited from each panel member and all responses are recorded. The panel then meets to edit the recorded list. Members eliminate duplication and nonessential items, fill in deficient areas and rewrite the list in performance terms. The group then rates each item for desired level of performance and specifies the importance of achievement of each task.

Performance analysis, the second technique, uses procedures for a careful study of a set of administrative behaviors desired of trainees. A number of different methods could be employed in conducting a performance analysis. These include questionnaires and checklists, observation, individual or group interviews and logbooks. Goal analysis and performance analysis are used to balance each other and produce a more accurate description of desired administrative training objectives.

The next important step in deriving training objectives involves the use of a technique called Latent Partition Analysis (LPA). LPA is a computer-assisted technique that helps to organize and clarify a set of ideas as those ideas are implicitly understood by a group of people. It is called "latent" because it reaches for the understood, but not previously expressed concepts. It is an "analysis" in that it is a means of examining and organizing the ideas.

Latent Partition Analysis (LPA) uses a free sort. That is, the people who made up the group or population are left free to sort a large number of training objectives in any way which is meaningful to them.

The procedure, except for the computer-assisted calculations, is technical but simple. Results of goal and performance analyses, in the form of many statements of training objectives, are written into an unclassified list. This set is printed onto cards, one objective per card. Blank cards are provided so that additional statements can be added by individuals asked to participate in the procedure. Persons sort the cards according to instructions that leave them free to determine their own classification system. The LPA computer program takes the cards, computes and reports how the group organizes its content. The result is a list and a classification scheme which is most compatible with the understanding of the group and which provides the actual training objectives of the program. Deriving objectives in this way assures a wide range of inputs and a much broader base of support for training efforts than does a traditional approach of content developments.

4. Multifaceted Instruction.

A competency-based training model handles instruction occurring under many different situations, in a variety of diverse locations designed for many different recipient populations. Training has been conducted in individual, small group or large group situations. Persons with a wide range of abilities can be offered instruction at the same time due to the individualized, self-correcting features of competency-based training.

Training can be provided in any location from a University campus to a home environment. The basic principles of competency-based instruction are site-free; that is, they do not require traditional institutional support system. These basic principles are employed to prepare each individual to carry learning over as part of his/her daily job. Thus, instruction at any location depends only on the participant and materials necessary to train the content objectives identified for that individual's specific needs.

An Overview of Program Implementation

The competency-based model described uses a systems approach and can be described by the underlying assumptions inherent in the model: individualized instruction, constant feedback of a self-correcting nature to the learner, ongoing program evaluation, empirically derived performance objectives, and diverse training possibilities. The sequence of training activities is as follows:

- identify target population for training
- pre-test trainees to estimate individual need for training
- derive performance objectives using goal and performance analysis
- prepare instruction based on derived objectives
- design assessment strategies based on derived performance objectives
- evaluate and revise program as needed

This sequence of events presents a simplistic yet straightforward overview of the competency-based model with the major purpose being the training of administrators of special education. □

Dick Weatherman is a Professor of Educational Administration at the University of Minnesota. Currently on leave, he is working on SEATP, among a range of other activities.

Judi Wolf is an Assistant Professor of Educational Administration at the University of Minnesota, where she, Dick Weatherman, and other colleagues have been working on the Special Education Administrator Training Program.